REMARKS

Applicants again submit a paper and electronic copy of the Sequence Listing. Additionally, the specification has been amended to insert SEQ ID Nos. and to correct editorial errors which have heretofore gone unnoticed.

As will be discussed in further detail below, claims 245, 255, 258 and 261 have been amended to more distinctly claim that which Applicants regard as their invention and to advance prosecution. The claims amendments are supported by the specification. No new matter has been added.

1. The Rejections Under 35 U.S.C. 102 Over Wagner et al.

Claims 245-247 and 249-254 have been rejected under 35 U.S.C. 102(b) as being anticipated by Wagner et al, U.S. Pat. No. 5,591,601. The Office Action states that

> The claim limitation do not serve to free the claim from the prior art because the claim language does not require that the intron be a part of the polymerase, but rather requires only that the intron be contained on the nucleic acid[sic] construct.

The Office Action further states

> A broad reasonable interpretation of this language does not require the intron to be a part of the polymerase, but rather that an intron be contained somewhere on the construct as a whole. Because Wagner teaches a plasmid (i.e. a nucleic acid construct) that encodes two genes, the first being a gene of interest which includes a genomic gene and therefor contains introns non-native to the construct as a whole (e.g. col. 5, line 40-49), and the second being the non-eukaryotic polymerase T7 which acts to transcribe multiple copies of he gene of interest, Wagner is considered to teach all the instant claim limitations.

Applicants respectfully traverse the rejection. However as noted above, claim 245 has been amended to recite that the intron is in the coding

sequence of the polymerase. Given that the claim is directed to a nucleic acid construct the term "nonnative" does not have any significance. Applicants wish to emphasize that the amendment of claim 245 is not in acquiescence to the Examiner's position but to merely advance prosecution. The subject matter recited in amended claim 245 can thus be clearly distinguished from that disclosed in Wagner et al. The T7 polymerase does not contain a non-native intron. Applicants further note that 246-247 and 249-254 depend from claim 245 and would also thus not be anticipated by Wagner et al. in view of amended claim 245.

2. The Rejections Under 35 U.S.C. 102 Over Yamashita et al.

Claims 255 and 258-261 have been rejected under 35 U.S.C. 102(b) as being anticipated by Yamashita et al., 1990, Agric. Biol. Chem. 54:2801-9. The Office Action specifically states

> Yamashita et al. teaches a nucleic acid construct which produces a nucleic acid product comprising a non-native intron, which is removed during processing in a eukaryotic cell, and wherein said nucleic acid product or protein expressed from a nucleic acid product would be toxic to a non-eukaryotic cell in the absence of said non-native intron, wherein the nucleic acid product is single-stranded sense RNA...

Applicants respectfully traverse the rejection. However as noted above, claim 255 has been amended to recite that the claimed nucleic acid construct when introduced into a non-eukaryotic cell produces a **first non-eukaryotic gene product** comprising a eukaryotic intron which is removed during processing in a eukaryotic cell and produces a second gene product or protein; this second gene product or protein is toxic **specifically** to a non-eukaryotic cell in the absence of the intron. Applicants wish to emphasize that the amendment of claim 255 is not in acquiescence to the Examiner's position but to merely advance prosecution.

Claim 261 has been amended to recite that the nucleic acid construct when introduced into a non-eukaryotic cell produces a gene product comprising a **non-native** intron in the coding sequence of the gene product, wherein said product would be **specifically toxic** to a non-eukaryotic cell in the absence of said intron and wherein said intron is removed during processing.

In contrast, Yamashita et al. discloses the expression of human lymphotoxin gene containing SV40 introns in eukaryotic cells. Yamashita et al. can thus be distinguished from the subject matter recited in claims 255 and 261 in two respects. First, Yamashita et al. discloses the expression of **human lymphotoxin**, a eukaryotic gene; secondly, lymphotoxin produced in eukaryotic cells are actually thought to have more potential for therapy than lymphotoxin produced in noneukaryotic cells (see Yamashita et al., p. 2801, column 1, lines 9-15). Clearly, lymphotoxin is not specifically toxic to a non-eukaryotic cell in the absence of intron. Actually lymphotoxin is designed to be a therapeutic agent for various cancers. However, there is no evidence indicating that lymphotoxin is toxic to a non-eukaryotic cell in the absence of intron, since it is unlikely that a lymphokine would even be recognized by a non-eukaryotic cell.

For the reasons give above, the subject matter recited in amended claims 255 and 261 may be distinguished from Yamashita et al. Furthermore, claim 258 depends from claim 255 and would thus not be anticipated by Yamashita et al. Claims 259 and 260 have been cancelled.

Therefore, Applicants respectfully request that the rejections be withdrawn.

Summary and Conclusions

Claims 245-255 and 258-261 are presented for further examination. Claims 245, 255 and 261 have been amended.

No fee or fees are believed due for this paper or the accompanying Petition. In the event that any fee or fees are due, however, The U.S. Patent and Trademark Office is hereby authorized to charge the amount of any such fee to Deposit Account 05-1135, or to credit any overpayment thereto.

If a telephone conversation would further the prosecution of the present application, Applicants' undersigned attorney request that he be contacted at the number provided below.

Respectfully submitted,

Cheryl H. Agris

Cheryl H. Agris
Registration No. 34,086
Attorney for Applicants

ENZO THERAPEUTICS, INC.
c/o ENZO BIOCHEM, INC.
527 Madison Avenue, 9th Floor
New York, New York 10022
Telephone: (212) 583-0100
Facsimile: (212) 583-0150